

Date: Wednesday, 05/11/2008 9:17:30 AM  
 User: Julie Dawson

## Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services		Drawing Name	: SUPPORT (412 AFT)	
Job Number	: 43209		Part Number	: D28961	
Estimate Number	: 11060		Drawing Number	: D2896 UNDER REVIEW OK CP 08.11.05	
P.O. Number	:		Project Number	: N/A	
This Issue	: 05/11/2008 S.O. No. :		Drawing Revision	: B	
Prsht Rev.	: NC		Material	:	
First Issue	: / / Type : MACHINED PARTS		Due Date	: 12/11/2008 Qty: 20 Um: Each	
Previous Run	: 43210				
Written By	:				
Checked & Approved By	: JUO 08.11.05				
Comment	: Est: B 02.11.26 Reformat; Added P/O; Added mask hole KJ Est Rev:C As per Rev B 07-04-16 JLM est D 08.03.19 Re-format EC verified by DD				

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
1.0	DSK080	D2896-1 TURNING DETAIL 
		Comment: Qty.: 0.5000 Each(s)/Unit Total : 10.0000 Each(s) D2896-1 TURNING DETAIL Batch: D38132
2.0	HAAS1	HAAS CNC VERTICAL MACHINING #1 
		Comment: HAAS 1 Machine as per Folio FA167 Tumble & Deburr
3.0	QC1	INSPECT ALL DIM TO DIM SHEET 
		Comment: INSPECT ALL DIM TO DIM SHEET
4.0	QC8	SECOND CHECK 
		Comment: SECOND CHECK
5.0	HAND FINISHING1	HAND FINISHING RESOURCE #1 
		Comment: HAND FINISHING RESOURCE #1 Mask Ø0.625" and face and bore as per Detail D and note 4 hole prior to paint

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
08/11/05	6	DO NOT POWDER COAT PRIME INSIDE <del>INT</del> BORE ONLY				CP 08/11/05 per 051042	

Part No: D2896-1 PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR: 43209		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
08/11/19	2.0	Mistake was made in the order of machining steps. .625 Hole was drill .020 off original place. Q.C. Not clear in the order of operations. Human Error.	/	1 part affected. Scrap part. 051042	mmf 08/11/19	jm 08/11/24	/	/

NOTE: Date &amp; initial all entries

Date: Wednesday, 05/11/2008 9:17:30 AM  
User: Julie Dawson

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SUPPORT (412 AFT)

Job Number: 43209

Part Number: D28961

Job Number:



Seq #: Machine Or Operation:

Description :

6.0 POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.2) as per QSI 005 4.3

No Powder

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

COAT

08.11.05

7.0 QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

No Powder Coat

8.0 SPRAY PAINTING

SPRAY PAINTING



Comment: SPRAY PAINTING

Prime Bore as per QSI 005 4.2.

RT 08-12-17 X19

9.0 QC14

INSPECT SPRAY PAINT



Comment: INSPECT SPRAY PAINT

12

10.0 PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: X-tube Ass

M 08 12 18

19

11.0 QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

08/12/22 XJ

Job Completion



MF 08-12-18

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	113201
Description: Support	Part Number:	D2896-1
Inspection Dwg: D2896	Rev: B	Page 1 of 1

### FIRST ARTICLE INSPECTION DIMENSION SHEET

First Article     Prototype

Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				1	2	3	4	5
HAAS Section								
AA	2.152	2.172		2.170	2.165	2.168	2.164	2.164
AB	2.340	2.360		2.359	2.356	2.354	2.347	2.343
AC	3.550	3.560		3.554	3.553	3.557	3.550	3.550
AD	3.770	3.790		3.778	3.778	3.775	3.774	3.772
AE	0.065 x 0.315	0.085 x 0.335		.067x.320	.065x.330	.065x.335	.071x.325	.071x.325
AF	1.42	1.48		1.45	1.45	1.44	1.453	1.453
AG	0.833	0.853		.846	.848	.847	.845	.842
AH	0.240	0.260		.250	.250	.250	.250	.250
AI	0.261	0.266		.260	.261	.261	.262	.262
AJ	0.189	0.194		.191	.190	.190	.190	.190
AK	1.990	2.010		2.007	2.000	2.000	2.005	2.008
AL	0.625	0.630		.626	.626	.626	.627	.627
AM	101.75	105.75		103.64	103.64	103.64	103.64	103.64
AN	0.053	0.073		.060	.063	.063	.063	.063
AO	0.926	0.946		.932	.930	.931	.938	.935
AP								
AQ								
AR								

Ensure that Ø0.625" bore is perpendicular to 1.764" bore within 0.005"

Accept/Reject    Accept    Accept    Accept    .002

Measured by: MWF 8/11/20 / J.L.    Date: 08/11/20

Audited by: DJP    Date: 08/11/20

Prototype Approval:    Date:

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	04.05.27	Dimension AE changed	KJ/RF	
C	06.11.22	Note added to HAAS section	KJ/JLM	
D	07.04.16	Dimsheet updated per Dwg Rev. B	KJ/JLM	
E	08.04.22	Reformat	KJ/JLM	<u>JLM</u>

All o!

DART AEROSPACE LTD	Work Order:	43201
Description: Support	Part Number:	D2896-1
Inspection Dwg: D2896	Rev: B	Page 1 of 1

### FIRST ARTICLE INSPECTION DIMENSION SHEET

First Article     Prototype

Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				16	27	38	49	510
HAAS Section								
AA	2.152	2.172		2.168	2.165	2.170	2.165	2.167
AB	2.340	2.360		2.352	2.350	2.350	2.352	2.349
AC	3.550	3.560		3.555	3.556	3.556	3.556	3.555
AD	3.770	3.790		3.781	3.781	3.780	3.778	3.777
AE	0.065 x 0.315	0.085 x 0.335		.075x.325	.075x.325	.075x.325	.075x.325	.075x.325
AF	1.42	1.48		1.453	1.453	1.454	1.454	1.457
AG	0.833	0.853		.848	.846	.844	.849	.847
AH	0.240	0.260		.250	.250	.250	.250	.250
AI	0.261	0.266		.262	.262	.262	.262	.262
AJ	0.189	0.194		.190	.190	.190	.190	.190
AK	1.990	2.010		1.999	2.003	2.000	1.995	2.005
AL	0.625	0.630		628	628	628	628	628
AM	101.75	105.75		103.75	103.75	103.75	103.75	103.75
AN	0.053	0.073		.063	.063	.063	.063	.063
AO	0.926	0.946		.941	.939	.937	.942	.940
AP								
AQ								
AR								

Ensure that Ø0.625" bore is perpendicular to 1.764" bore within 0.005"

Accept/Reject	/	/	/	/	/
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Measured by:	J-L / mmf - 08/11/23	Date:	08/11/21
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Audited by:	DT	Date:	08/11/21
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Prototype Approval:		Date:	
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Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	04.05.27	Dimension AE changed	KJ/RF	
C	06.11.22	Note added to HAAS section	KJ/JLM	
D	07.04.16	Dimsheet updated per Dwg Rev. B	KJ/JLM	
E	08.04.22	Reformat	KJ/JLM	

DART AEROSPACE LTD	Work Order:	43009
Description: Support	Part Number:	D2896-1
Inspection Dwg: D2896	Rev: B	Page 1 of 1

### FIRST ARTICLE INSPECTION DIMENSION SHEET

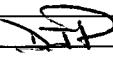
First Article       Prototype

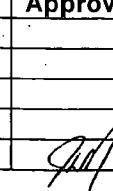
Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				11	12	13	14	15
HAAS Section								
AA	2.152	2.172		2.172	2.158	2.169		
AB	2.340	2.360		2.349	2.348	2.350	2.351	2.354
AC	3.550	3.560		3.556	3.555	3.555	3.557	3.559
AD	3.770	3.790		3.779	3.780	3.780	3.778	3.779
AE	0.065 x 0.315	0.085 x 0.335		.075X.325	.075X.325	.075X.325	.075X.325	.073X.325
AF	1.42	1.48		1.451	1.455	1.454	1.449	1.416
AG	0.833	0.853		.849	.843	.851	.847	.846
AH	0.240	0.260		.250	.250	.250	.250	.250
AI	0.261	0.266		.262	.262	.262	.261	.261
AJ	0.189	0.194		.190	.190	.190	.191	.191
AK	1.990	2.010		1.996	2.000		1.995	2.000
AL	0.625	0.630		.628	.628	.628	.625	.630
AM	101.75	105.75		103.75	103.75	103.75	103.75	103.75
AN	0.053	0.073		.063	.063	.063	.063	.063
AO	0.926	0.946		.942	.936	.943	.941	.943
AP								
AQ								
AR								

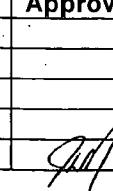
Ensure that Ø0.625" bore is perpendicular to 1.764" bore within 0.005"

Accept/Reject

Measured by: J.L / Date: 08/11/23

Audited by:  Date: 08/11/24

Prototype Approval:  Date:

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	04.05.27	Dimension AE changed	KJ/RF	
C	06.11.22	Note added to HAAS section	KJ/JLM	
D	07.04.16	Dimsheet updated per Dwg Rev. B	KJ/JLM	
E	08.04.22	Reformat	KJ/JLM	

DART AEROSPACE LTD	Work Order:	43209
Description: Support	Part Number:	D2896-1
Inspection Dwg: D2896	Rev: B	Page 1 of 1

### FIRST ARTICLE INSPECTION DIMENSION SHEET

First Article     Prototype

Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				16	217	318	419	520
HAAS Section								
AA	2.152	2.172		2.169	2.165	2.163	2.169	
AB	2.340	2.360		2.357	2.354	2.351	2.357	
AC	3.550	3.560		3.555	3.555	3.556	3.558	
AD	3.770	3.790		3.777	3.778	3.780	3.779	
AE	0.065 x 0.315	0.085 x 0.335		.075 x .325	.075 x .325	.075 x .325	.075 x .325	
AF	1.42	1.48		1.415	1.415	1.411	1.415	
AG	0.833	0.853		.851	.845	.841	.848	
AH	0.240	0.260		.250	.250	.250	.250	
AI	0.261	0.266		.262	.262	.262	.262	
AJ	0.189	0.194		.190	.190	.190	.190	
AK	1.990	2.010		2.000	1.997	1.997	1.997	
AL	0.625	0.630		.628	.628	.627	.628	
AM	101.75	105.75		103.64	103.64	103.64	103.64	
AN	0.053	0.073		.063	.063	.063	.063	
AO	0.926	0.946		.942	.940	.936	.937	
AP								
AQ								
AR								

Ensure that Ø0.625" bore is perpendicular to 1.764" bore within 0.005"

Accept/Reject	<input checked="" type="checkbox"/>	.06	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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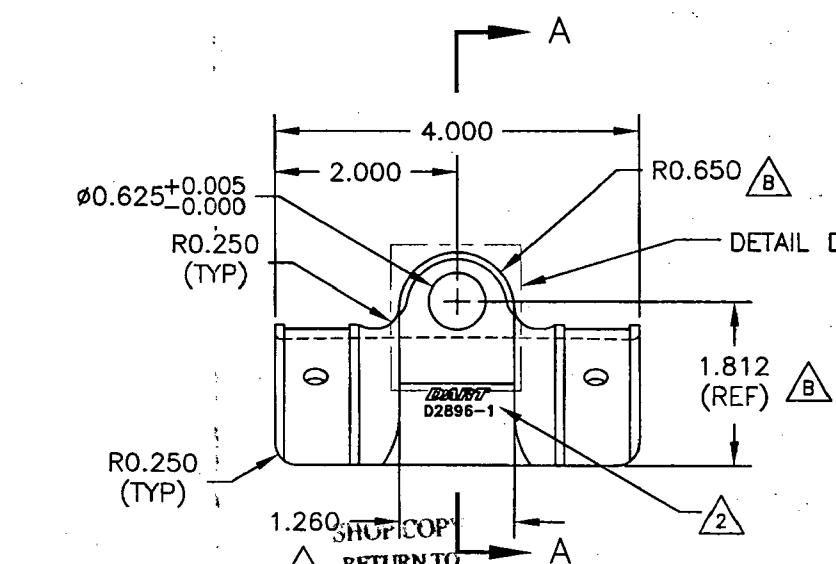
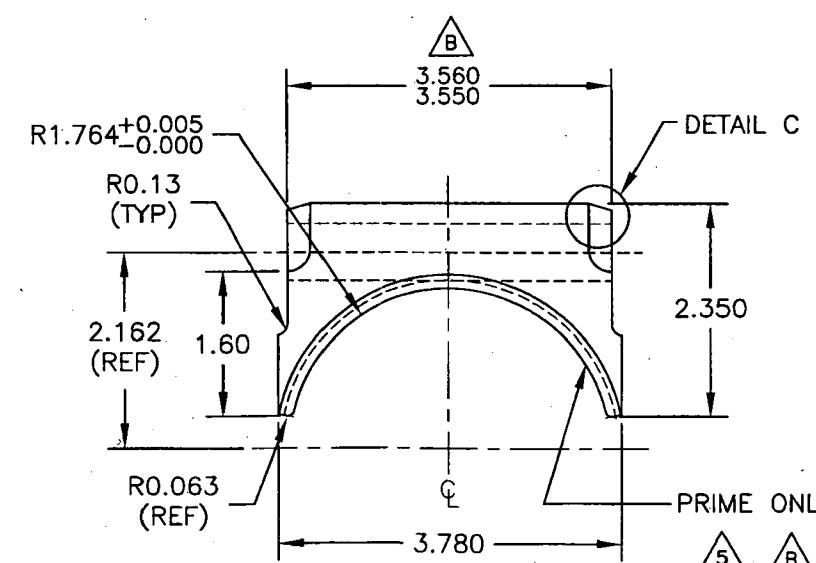
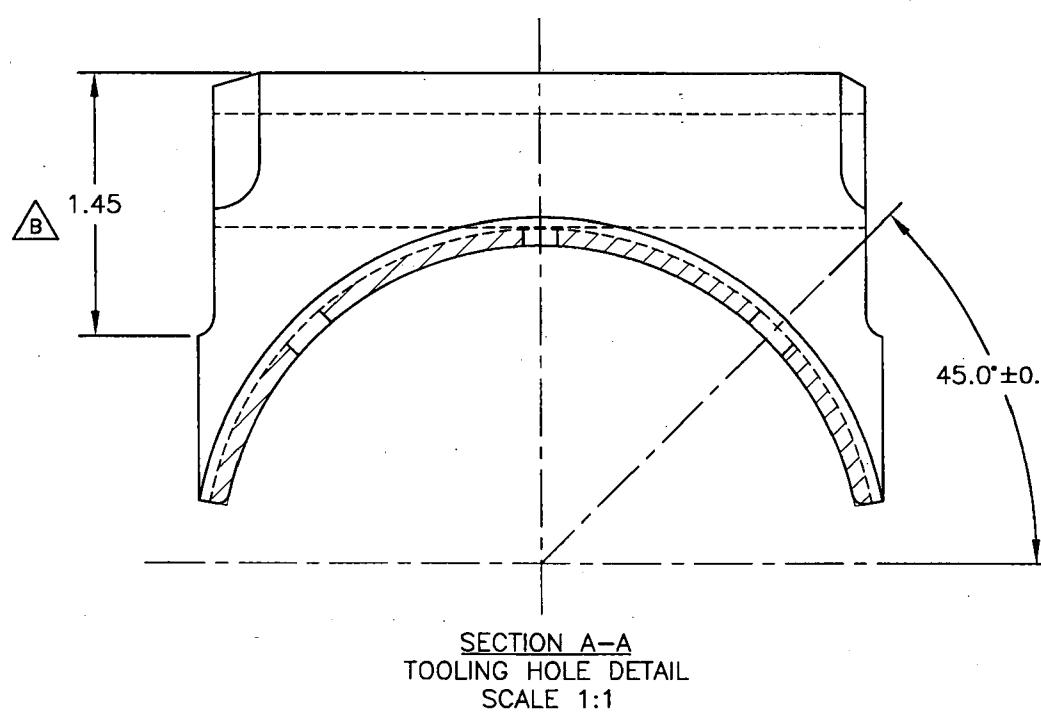
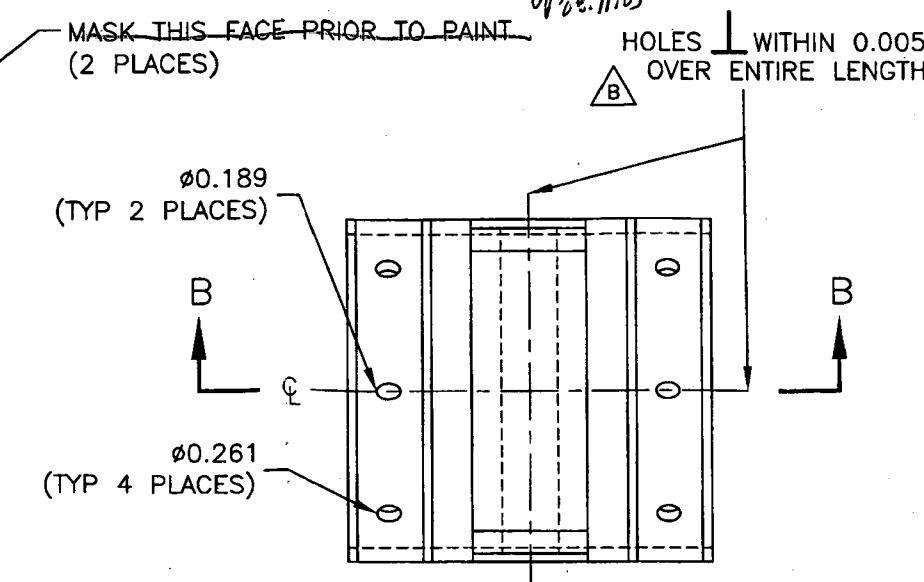
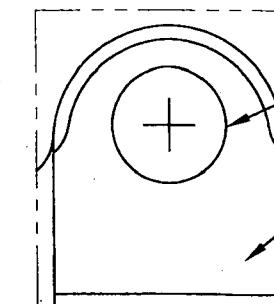
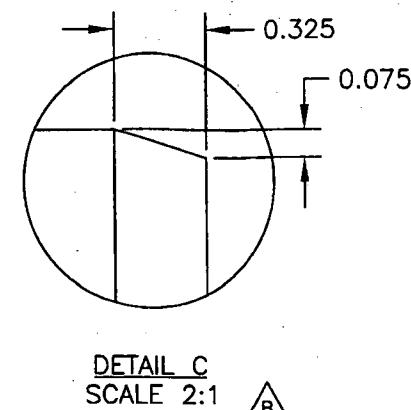
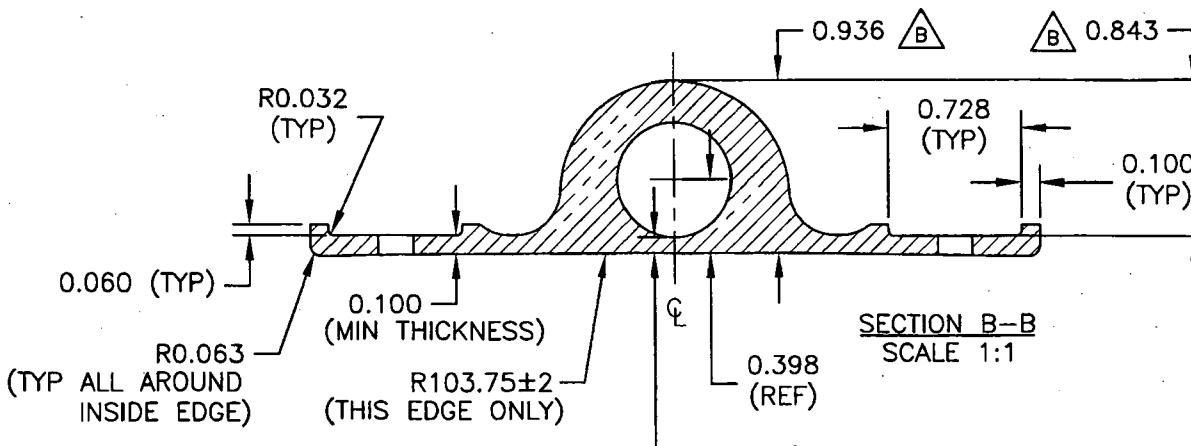
Measured by:	mnr	Date:	08/11/23
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Audited by:	DSR	Date:	08/11/24
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Prototype Approval:		Date:	
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Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	04.05.27	Dimension AE changed	KJ/RF	
C	06.11.22	Note added to HAAS section	KJ/JLM	
D	07.04.16	Dimsheet updated per Dwg Rev. B	KJ/JLM	
E	08.04.22	Reformat	KJ/JLM	✓ ✓

RELEASED  
07.04.12 CP  
PER BEN 946



D2896-1

- 1) MATERIAL: 17-4 PH STAINLESS STEEL  
HEAT TREAT TO H900 CONDITION  
(900°F FOR 1 HR, AIR COOL)  
MIN UTS = 170 KSI (38 HRc)
- 2) IDENTIFY WITH DART LOGO AND PART NUMBER IN THIS AREA  
WITH 0.125 HIGH LETTERING 0.010–0.020 DEEP
- 3) BREAK ALL UNMARKED SHARP EDGES 0.010 TO 0.020
- 4) PART IS SYMMETRIC ABOUT CENTERLINE
- 5) FINISH: ~~POWDER COAT WHITE (REF 4.3.5.2)~~ PER DART QSI 005 4.3  
PRIME INSIDE SURFACE AS SHOWN PER DART QSI 005 4.2
- 6) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 7) ALL DIMENSIONS ARE IN INCHES

NO POWDER  
COAT  
P  
08.11.05

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OR COPIED OR COMMUNICATED TO ANY OTHER  
PERSON WITHOUT WRITTEN PERMISSION FROM  
DART AEROSPACE LTD.

B	07.03.19	INCORP. A1–A4, FINISHING NOTES
A	01.10.19	NEW ISSUE
DESIGN	GP	DRAWN BY PH
CHECKED	H	APPROVED H
DRAWING NO.	D2896	REV. B
DATE	07.03.19	SHEET 1 OF 1
TITLE	SUPPORT	SCALE 1:2

UNDER REVIEW  
03.02.11 P#  
NO MORE POWDER  
COAT

